

Responsive Grid System

Responsive Grid System Play+ provides a powerful, responsive grid system based on Bootstrap's 12-column layout. This system enables you to create flexible, mobile-first layouts that adapt seamlessly across different screen sizes.

Overview ■ The grid system consists of:

- 12-column layout for maximum flexibility
- 6 responsive breakpoints (xs, sm, md, lg, xl, xxl)
- Container classes for content wrapping
- Column classes for layout control
- Utility classes for advanced positioning

Breakpoints ■ Breakpoint Class Prefix Min Width Container Max Width

Extra small	None	< 576px	Auto	Small sm-	≥ 576px	540px	Medium md-	≥ 768px	720px	Large lg-	≥ 992px	960px	Extra large xl-	≥ 1200px	1140px	Extra extra large xxl-	≥ 1400px	1320px
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Containers ■ Basic Container ■ `<div class="container"><!-- Content with responsive max-width --></div>` Fluid Container ■ `<div class="container-fluid"><!-- Content that spans full width --></div>` Grid Columns ■ Basic Column Classes ■ `<div class="row"><div class="col-6">Half width</div><div class="col-6">Half width</div></div>` Responsive Columns ■ `<div class="row"><div class="col-12 col-md-6 col-lg-4"><!-- Full width on mobile, half on tablet, third on desktop --></div><div class="col-12 col-md-6 col-lg-4"><!-- Full width on mobile, half on tablet, third on desktop --></div><div class="col-12 col-lg-4"><!-- Full width on mobile/tablet, third on desktop --></div></div>` Auto-sizing Columns ■ `<div class="row"><div class="col">Auto-sized</div><div class="col">Auto-sized</div><div class="col">Auto-sized</div></div>` Column Widths ■ Class Width Description .col-1 8.333% 1/12 of container .col-2 16.667% 2/12 of container .col-3 25% 3/12 of container .col-4 33.333% 4/12 of container .col-5 41.667% 5/12 of container .col-6 50% 6/12 of container .col-7 58.333% 7/12 of container .col-8 66.667% 8/12 of container .col-9 75% 9/12 of container .col-10 83.333% 10/12 of container .col-11 91.667% 11/12 of container .col-12 100% Full width .col-auto Auto Content-based width Row Columns ■ Control how many columns appear in a row: `<div class="row row-cols-1 row-cols-md-2 row-cols-lg-3"><div class="col">1 column per row on mobile</div><div class="col">2 columns per row on tablet</div><div class="col">3 columns per row on desktop</div></div>` Gutters ■ Default Gutters ■ `<div class="row"><div class="col">With default gutters</div></div>` No Gutters ■ `<div class="row no-gutters"><div class="col">No spacing between columns</div></div>` Custom Gutter Sizes ■ `<div class="row g-0"><!-- No gutters --><div class="row g-1"><!-- 0.25rem gutters --><div class="row g-2"><!-- 0.5rem gutters --><div class="row g-3"><!-- 1rem gutters --><div class="row g-4"><!-- 1.5rem gutters --><div class="row g-5"><!-- 2rem gutters --></div></div>`

= " row g-5 " > <!-- 3rem gutters --> </div> </div> </div> </div> </div> </div>

Directional Gutters ■ <div class = " row gx-3 " > <!-- Horizontal gutters only --> <div class = " row gy-2 " > <!-- Vertical gutters only --> </div> </div>

Offsets ■ Move columns to the right using offset classes: <div class = " row " > <div class = " col-4 offset-4 " > Centered column </div> <div class = " col-3 offset-3 " > Offset by 3 columns </div> </div>

Push and Pull ■ Reposition columns using push and pull classes: <div class = " row " > <div class = " col-9 push-3 " > Pushed to the right </div> <div class = " col-3 pull-9 " > Pulled to the left </div> </div>

Card Layout ■ <div class = " container " > <div class = " row row-cols-1 row-cols-md-2 row-cols-lg-3 g-4 " > <div class = " col " > <div class = " card " > <div class = " card-body " > <h5 class = " card-title " > Card 1 </h5> <p class = " card-text " >

Responsive card layout </p> </div> </div> </div> <div class = " col " > <div class = " card " > <div class = " card-body " > <h5 class = " card-title " > Card 2 </h5> <p class = " card-text " > Responsive card layout </p> </div> </div> </div> <div class = " col " > <div class = " card " > <div class = " card-body " > <h5 class = " card-title " > Card 3 </h5> <p class = " card-text " > Responsive card layout </p> </div> </div> </div> </div> </div>

Sidebar Layout ■ <div class = " container-fluid " > <div class = " row " > <div class = " col-12 col-lg-3 " > <aside class = " sidebar " > <!-- Sidebar content --> </aside> </div> <div class = " col-12 col-lg-9 " > <main class = " main-content " > <!-- Main content --> </main> </div> </div> </div>

Form Layout ■ <div class = " container " > <form> <div class = " row " > <div class = " col-md-6 " > <label for = " firstName " > First Name </label> <input type = " text " class = " form-control " id = " firstName " /> </div> <div class = " col-md-6 " > <label for = " lastName " > Last Name </label> <input type = " text " class = " form-control " id = " lastName " /> </div> </div> <div class = " row " > <div class = " col-12 " > <label for = " email " > Email </label> <input type = " email " class = " form-control " id = " email " /> </div> </div> </form> </div>

Best Practices ■ **Mobile-first approach** : Start with mobile layouts and enhance for larger screens

Use semantic HTML : Combine grid classes with meaningful HTML structure

Test across breakpoints : Ensure layouts work well at all screen sizes

Avoid nesting too deeply : Keep grid nesting to a minimum for maintainability

Use appropriate containers : Choose between .container and .container-fluid based on your design needs

CSS Custom Properties ■ The grid system uses CSS custom properties for gutters: :root { --mdb-gutter-x : 1.5 rem ; /* Horizontal gutter */ --mdb-gutter-y : 0 ; /* Vertical gutter */ }

You can customize these values in your theme or override them for specific components.

```
<div class="container">
  <!-- Content with responsive max-width -->
```

```
</div>
```

```
---
```

```
<div class="container-fluid">
  <!-- Content that spans full width -->
</div>
```

```
---
```

```
<div class="row">
  <div class="col-6">Half width</div>
  <div class="col-6">Half width</div>
</div>
```

```
---
```

```
<div class="row">
  <div class="col-12 col-md-6 col-lg-4">
    <!-- Full width on mobile, half on tablet, third on desktop -->
  </div>
  <div class="col-12 col-md-6 col-lg-4">
    <!-- Full width on mobile, half on tablet, third on desktop -->
  </div>
  <div class="col-12 col-lg-4">
    <!-- Full width on mobile/tablet, third on desktop -->
  </div>
</div>
```

```
---
```

```
<div class="row">
  <div class="col">Auto-sized</div>
  <div class="col">Auto-sized</div>
  <div class="col">Auto-sized</div>
</div>
```

```
---
```

```
<div class="row row-cols-1 row-cols-md-2 row-cols-lg-3">
  <div class="col">1 column per row on mobile</div>
  <div class="col">2 columns per row on tablet</div>
  <div class="col">3 columns per row on desktop</div>
</div>
```

```
---
```

```

<div class="row">
  <div class="col">With default gutters</div>
</div>

```

```

<div class="row no-gutters">
  <div class="col">No spacing between columns</div>
</div>

```

```

<div class="row g-0">
  <!-- No gutters -->
  <div class="row g-1">
    <!-- 0.25rem gutters -->
    <div class="row g-2">
      <!-- 0.5rem gutters -->
      <div class="row g-3">
        <!-- 1rem gutters -->
        <div class="row g-4">
          <!-- 1.5rem gutters -->
          <div class="row g-5"><!-- 3rem gutters --></div>
        </div>
      </div>
    </div>
  </div>
</div>

```

```

<div class="row gx-3">
  <!-- Horizontal gutters only -->
  <div class="row gy-2"><!-- Vertical gutters only --></div>
</div>

```

```

<div class="row">
  <div class="col-4 offset-4">Centered column</div>
  <div class="col-3 offset-3">Offset by 3 columns</div>
</div>

```

```

<div class="row">
  <div class="col-9 push-3">Pushed to the right</div>
  <div class="col-3 pull-9">Pulled to the left</div>

```

</div>

```
<div class="container">
  <div class="row row-cols-1 row-cols-md-2 row-cols-lg-3 g-4">
    <div class="col">
      <div class="card">
        <div class="card-body">
          <h5 class="card-title">Card 1</h5>
          <p class="card-text">Responsive card layout</p>
        </div>
      </div>
    </div>
    <div class="col">
      <div class="card">
        <div class="card-body">
          <h5 class="card-title">Card 2</h5>
          <p class="card-text">Responsive card layout</p>
        </div>
      </div>
    </div>
    <div class="col">
      <div class="card">
        <div class="card-body">
          <h5 class="card-title">Card 3</h5>
          <p class="card-text">Responsive card layout</p>
        </div>
      </div>
    </div>
  </div>
</div>
```

```
<div class="container-fluid">
  <div class="row">
    <div class="col-12 col-lg-3">
      <aside class="sidebar">
        <!-- Sidebar content -->
      </aside>
    </div>
    <div class="col-12 col-lg-9">
      <main class="main-content">
        <!-- Main content -->
      </main>
    </div>
  </div>
</div>
```

```

<div class="container">
  <form>
    <div class="row">
      <div class="col-md-6">
        <label for="firstName">First Name</label>
        <input type="text" class="form-control" id="firstName" />
      </div>
      <div class="col-md-6">
        <label for="lastName">Last Name</label>
        <input type="text" class="form-control" id="lastName" />
      </div>
    </div>
    <div class="row">
      <div class="col-12">
        <label for="email">Email</label>
        <input type="email" class="form-control" id="email" />
      </div>
    </div>
  </form>
</div>

```

```

:root {
  --mdb-gutter-x: 1.5rem; /* Horizontal gutter */
  --mdb-gutter-y: 0; /* Vertical gutter */
}

```